

WHAT IS CLAIMED IS:

1. A method of assigning at least a portion of the radio frequency (RF) spectrum among at least one of a plurality of RF transmitters and a plurality of RF receivers, the method comprising:

monitoring a communication parameter that affects a performance of a group within the plurality of RF transmitters and receivers, the group comprising at least one of the plurality of RF transmitters and receivers;

determining, in response to the monitored communication parameter, a state of performance of the group; and

allocating at least a portion of the RF spectrum from a group having a best state of performance to at least one of the plurality of other RF transmitters and receivers.

2. A method of allocating at least a portion of the radio frequency (RF) spectrum among a plurality of RF transmitters, the method comprising:

monitoring aggregate demand of a group of transmitters within the plurality of RF transmitters, the group comprising at least one RF transmitter;

determining, in response to the monitored demand, relative data congestion of the group of transmitters; and

allocating at least a portion of the RF spectrum from a group having a least amount of congestion to at least one of the plurality of other RF transmitters.

3. A communication receiver that receives radio frequency (RF) signals from a plurality of RF transmitters, the communication transceiver programmed with instructions that when executed perform the method comprising:

monitoring aggregate demand of a group of transmitters within the plurality of RF transmitters, the group comprising at least one RF transmitter;

determining, in response to the monitored demand, relative data congestion of the group of transmitters; and

allocating at least a portion of the RF spectrum from a group having a least amount of congestion to at least one of the plurality of other RF transmitters.

5 4. A system for allocating at least a portion of the radio frequency (RF) spectrum among a plurality of RF transmitters, the system comprising:

 a plurality of RF transmitters each configured to transmit data over a respective RF channel; and

10 a hub transceiver in communication with the plurality of RF transmitters, and configured to monitor the aggregate demand of a group of the plurality RF transmitters, the group comprising at least one RF transmitter, wherein the hub transceiver is further configured to re-allocate a portion of the RF spectrum from the group of RF transmitters having a smallest aggregate demand to at least one of the plurality of other RF transmitters.

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